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## FOREIGN TECHNOLOGY DIVISION



MILITARY SCIENCE AND ACADEMIES

bу

P. A. Rotmistrov



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U. S. BOARD ON GEOGRAPHIC NAMES TRANSLITERATION SYSTEM

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Block	Italic	Transliteration	Block	Italic	Transliteratic
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 $\underline{\underline{}}$  ye initially, after vowels, and after  $\underline{}$ ,  $\underline{}$ ;  $\underline{e}$  elsewhere. When written as  $\underline{\ddot{e}}$  in Russian, transliterate as  $\underline{\ddot{e}}$  or  $\underline{\ddot{e}}$ .

## RUSSIAN AND ENGLISH TRIGONOMETRIC FUNCTIONS

Russian	English	Russian	English	Russian	English
sin	sin	sh	sinh	arc sh	$sinh^{-1}$
COS	COS	ch	cosh	arc ch	cosh
tg	tan	th	tanh	arc th	tann
ctg	cot	cth	coth	arc cth	coth 1
sec	sec	sch	sech	arc sch	sech <sup>-</sup> ;
cosec	CSC	csch	esch	arc csch	csch

Russian	English		
rot	curl		
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MILITARY SCIENCE AND ACADEMIES
Chief Marshal of Armored Troops P. A. Rotmistrov

The Central Committee of the KPSS and the Council of Ministers of the USSR in the recently passed resolution "On Further Development of the Scientific Research Work in the Higher Education Institutions" note that the higher school, which has a highly qualified staff of scientific workers at its disposal, is not taking a sufficiently active part in the solution of the problems facing the national economy. Therefore, the TSK KPSS and the Council of Ministers have deemed it necessary to significantly raise the role of higher education establishments in the solution of the most important scientific problems. This requirement is totally applicable also to the higher military education institutions, it obliges the professorial teaching staffs to re-examine their role in the solution of enormous problems facing the Armed Forces, in working up the most important problems of contemporary military science.

The successes of socialist production, Soviet science and technology have made it possible to realize a true revolution in military affairs. It manifested itself in a radical rearmament of the army and fleet, in the improvement of their structure, in shaping a new Soviet military doctrine, and in the change of the basic positions of the Soviet military art. Revolution in military affairs, which is unthinkable without science, is itself the strongest stimulus for further development of the military science, for increasing its role in the solution of numerous problems dealing with building of the Armed Forces.

Large-scale introduction of new military hardware changes the face of the army and fleet. This makes it necessary to work out, in good time, the appropriate methods and forms of conducting a war, use of kinds of armed forces in it, combat deployment of the branches of arms, and support of their operations. The most characteristic feature of of a contemporary development in military affairs is a rapid development of nuclear weapons and means for their delivery to the targets, and also an extensive introduction of the achievements in radio electronics which ensure a full automation of the troops and arms control.

All this required a decisive falling away from the previously established positions of strategy, operational art and tactics; significant changes in the organizational structure of the armed forces, further development of the combat material and armament, development of new methods for conducting combat operations, which correspond to the capabilities of the new means of warfare.

The efforts of the Communist Party of the Soviet Union and of its Central Committee have resulted in the most favorable conditions for a comprehensive working out of the problems of military science. Much has been done to eliminate the results of a personality cult and, in particular, for rooting out textualism and dogmatism in the military science work which have shackled the military-scientific thought and inhibited the development of military science. Our military cadres, especially the military-scientific organizations, are called upon to employ these favorable conditions to their fullest extent for working out the problems of military science.

The defence minister of the USSR, Marshal of the Soviet Union R. Ya. Malinovskiy, in his recent reply to the question posed to him by a group of editors of military newspapers and magazines concerning the problems of military press, has indicated that the theoreticians and practicians from the scientific institutions and military education establishments must accept a broader participation in formulating correct innovative views and in creative development of advanced military thought, especially in the preliminary elaboration of all basic problems of preparation and how to conduct combat operations in a future war.

In recent years, military academies, along with training highly

skilled military cadres, have made a substantial contribution to the development of military science and technology. However, this is only the beginning. They are called upon for a more active participation in the propaganda of the principal questions dealing with military science, to exert a noticeable influence on the practical life of the troops, and for a successful solution of the problems which are of the scientific and research nature.

Military academies have all the necessary ingridients at their disposal for this task and, first of all, the scientific staff. For as you know, many of our instructors are also the foremost specialists in the area of their own branch of service. Military academies have quite a few energetic and inquisitive young people in their staffs.

Combat experience shows that new means of warfare require new forms and methods of their application. In view of this fact, many different ideas have been expressed on the subject of conducting a contemporary battle, operation, and war as a whole. However, some military analysts express their opinions so peremptorily as though they have been confirmed by the experience of war. In actuality, however, many such suppositions are in need of an extensive study. For today, it can be said that, as a result of the military theoretical studies and the experience of training troops and staffs, certain established views and positions of military art begin to lose their initial significance as applied to further development in armament and combat materiel. Thus, the situation evokes an urgent need for continual military-scientific studies.

Of particular importance is the development in the area of military art, dealing with how to conduct the initial period of a war, the significance of which, as regards the achievent of victory over the enemy, has increased immeasurably. Under present conditions the capabilities of our armed forces has risen sharply for attaining final strategic goals of war in relatively short periods of time. This calls for an urgent in-depth elaboration and advanced analysis of not only the ways for the development of armament and combat material but also of the ways in which the fundamental military and theoretical studies are being conducted on defining the corresponding forms and methods for conducting warfare.

We must not be carried away by some fruitless theories and forget about the reality. We must remember that both the overestimation and underestimation or, what is more, disdainful regard for the old branches of service or for the old weapons, is not only intolerable but also harmful, especially within the framework of tactics, where the need for the "old" weapons will apparently remain for quite some time to come.

As the history of wars teaches us, the new forms of conducting a battle do not completely replace the old ones at once but gradually, because the new cannot do without the old for long. This situation pertains also to the development in armament and combat material. In determining their role in an armed conflict, depending on the results of using only the new types of weapons can lead to erroneous conclusions.

The correctness of determining the role of a particular type of armed forces and branch of service, of their weapons and combat materiel, is still based on the results of the studies, war games, field tests, and various comparisons without their actual tests on the field of battle. This constitutes the principal complexity and difficulty of determining the reliability and viability of the advocated positions. At the same time, neither can we agree with the assertions that the reliability and viability of new theoretical positions on military art can be determined only by war.

We have a sufficiently developed procedure for conducting experimental training, operational games, and other measures, which ensure the obtaining of fully substantiated positions and calculations which are advanced when determining the role of one or another weapon, its deployment methods, and support of the troops' operations in order to achieve victory over the enemy.

However, it should be noted that the big problems of the military-scientific work are found not only in the area of studying the questions dealing with the combat deployment of the new means of warfare. Many problems are awaiting their solution also in the theory of using conventional weapons.

For example, it is a generally known fact that The Strategic Missile Forces, which are the decisive force in achieving the main objectives of the operations and war as a whole, occupy the first place in

our armed forces. However, in the future war, in which the advance will be rapid with deep penetration despite the use of missiles, aviation will also play an important part, especially in the area of the 'activities by the tank troops and other battle groups acting independently of other forces.

In the case of a maneuver warfare, the aviation will become not only the sole means for reconnaissance but also a reliable, sufficiently effective means for neutralizing the moving targets using both the nuclear warheads and conventional bombs. Despite the development of missiles of the "ground to air" type, the fighter aircraft will play a considerable part in the role of giving cover for their own troops against the assaults of the enemy aircraft and accompanying them in the case of deep penetrations. Consequently, despite the rapid development of missiles and missile technology as a whole, aviation will have an important role to play in a future war.

The specialists of the Air Force Academies should take the floor and get involved more extensively in determining the ways in which aviation can be used under the conditions of a contemporary war. Similar questions can arise in the course of estimating the prospects of development of all types of armed forces.

As we can see, the demands on the military-scientific work of the military academies at the present stage are very great. In order to satisfy these requirements, the organizations of the higher military education institutions must direct all forms of conducting scientific work towards the development of new, truly fundamental questions and get away from fruitless repetitions and "substantiations" of the positions established by regulations.

Many of the professors and instructors of the military academies are writing intersting articles, which are of the military-history and memoir nature. Their labor is deserving of all sorts of praise. But this is clearly not enough. In addition to knowing the historical events, it is even more important to be able to analyze the events of the past in order to broaden the prospects of the future. Thus, it is desirable to see in the scientific work and articles devoted to historical events a thorough analysis of that which the history teaches. Listing of the bare facts and events does not facilitate the comprehen-

sion of the future.

It is absolutely natural that it is much more difficult to conduct the scientific research under this form of creative atmosphere. But this task is definitely within the capabilities of the professorial and teaching staff of the higher military educational establishments. It can be accomplished successfully if the work of the scientific groups is directed along a creative path.

Utilizing their powerful technological base, the staffs of higher military educational establishments must conduct extensive scientific research. For this, it is necessary to concentrate the efforts on the development of fundamental themes, attend the meetings of the departments, academy councils, and military-research conferences and listen to the reports, synopses and, sometimes, also scientific papers with the new presentation and solution of the problem questions.

Military academies must not only advance new theoretical positions but also make sure that these positions are verified in the course of training. With this in mind, it would be desirable, perhaps not often, to afford the military academies the possibility of conducting an experimental training using special programs. Of course, it is necessary to make a broader appeal to the professorial and teaching staff, and have them work with the troops not just as arbitrators but also as the executors and organizers of these training sessions.

The entire military research work at the military educational establishments should be organized in such a way as to make visible the results of the activity of each department as the principal center of the military-science work being conducted in the appropriate direction and the face of each instructor as the scientific worker.

I should wish to turn a separate attention on the necessity of sharply increasing the labor productivity of the professorial and teaching staff of the academies. Unfortunately, in a number of cases, due to the insufficiently thought out organization of the scientific work and training methods at our higher military educational establishments, even the highly skilled specialists spend much time on performing work which is outside of their skill.

However, as a whole, we must not confine the military research work within the scope of one or another department of the higher military

educational establishments. On the contrary, based on its results, it must go beyond the confines of the academic programs and, to a greater extent, correspond to the common problems facing our armed forces.

At the same time, while involved in the military-research activity, the command personnel and the professorial teaching staff of the higher military educational establishments must not forget that their main task is the training of highly educated, ideologically hardened military cadres, which are devoted to their country.

Raising the combat readiness of the armed forces depends considerably on the quality of training received by the cadres of military specialists. The prospects of development of the military affairs require the training of such specialists for the army and fleet who, along with a solid knowledge of the principles of organization and of conducting a battle and operations, control of the troops, and support for their combat operations, would also have high general education and engineering and technical training.

As a result of the radical changes which occurred in the materiel-technical equipping of our army and navy, our higher military educational establishments are now faced with new, very important problems both in the area of conducting military research and in the matter of training military cadres. The military academies must solve these problems at the highest ideological-theoretical level.

